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SCHIFF HARDIN & WAITE

PATENT DEPARTMENT

6600 SEARS TOWER

233 SOUTH WACKER DRIVE

CHICAGO, ILLINOIS 60606

In re application of: Andres SOMMER

SERIAL NO.: 09/495,710 GROUP ART UNIT: 2882

FILED: February 1, 2000 EXAMINER P. Hobden

TITLE: "COMPUTED TOMOGRAPHY APPARATUS"

APPLICANT'S RESPONSE TO THE MAY 14, 2003 OFFICE ACTION

Assistant Commissioner for Patents
Washington D.C. 20231
SIR:

Transmitted herewith is an amendment in the above-identified application.

☒ No additional fee is required.

The fee has been calculated as shown below.

CLAIMS AS AMENDED							
		(2) CLAIMS REMAINING AFTER AMENDMENT		(4) HIGHEST NO. PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEE
	TOTAL CLAIMS	7	MINUS	20	X	( ) X 9.00 ( ) X 18.00	
	INDEP. CLAIMS	*1	MINUS	3	X	( ) X 40.00 ( ) X 80.00	
	Application amended to contain any multiple dependent claims not previously paid for.				( ) YES ( ) NO	( ) $135.00 ( ) $270.00 ONE TIME	
				TOTAL ADDITIONAL FEE FOR THIS AMENDMENT			$0.00

* If the entry in Column 2 is less than the entry in Column 4, write "0" in Column 5.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20 write "20" in this space.

☐ Applicants petition the Commissioner of Patents and Trademarks to extend this time for response to the Office Action dated _____ for ____months so that the period for response is extended to _____.

☐ A check in the amount of $ _____ is attached.

☐ A check for $ _____ accompanying IDS under 37 CFR 1.97(c) is attached

☐ A check for $ _____ and Petition for Consideration of IDS under 37 CFR 1.97(d) is attached.

■ The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519. A duplicate of this sheet is enclosed.

When phoning re this application, please call (312) 258-5500.

SCHIFF HARDIN & WAITE **(Customer Number: 26574)**
Patent Department

BY Steven H. Noll (28,982)

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on August 11, 2003

Steven H. Noll
NAME OF APPLICANT'S ATTORNEY

Steven H. Noll
SIGNATURE

August 11, 2003
DATE

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RESPONSE TO THE MAY 14, 2003 OFFICE ACTION

APPLICANT(S):	Andres Sommer	CONFIRMATION NO.: 5203
SERIAL NO.:	09/495,710	GROUP ART UNIT: 2882
FILED:	February 1, 2000	EXAMINER: Hoon K. Song
TITLE:	"COMPUTED TOMOGRAPHY APPARATUS"	

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

S I R:

Applicant and his counsel have carefully reviewed the Office Action dated May 14, 2003, but believe the claims in their present form are patentable over the references relied upon by the Examiner. Reconsideration of the application in view of the following arguments in support of patentability is therefore respectfully requested.

REMARKS

In the Office Action dated May 14, 2003, claims 1, 2, and 4-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fujita et al. in view of Kok. Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fujita et al. in view of Kok, further in view of Barth.

These rejections are respectfully traversed for the following reasons.

In substantiating the rejection of claims 1, 2 and 4 based on the Fujita et al. reference, the Examiner, after listing a number of items which the Examiner believes correspond to the elements of claim 1, stated "However, Fujita merely teaches that the support plate being non-displaceably mounted." (page 3, lines 4 and 5 of the Office Action). It is not clear whether this is a typographical error. As discussed in

Applicant's previous response, and as discussed with the Examiner in the telephone interview, the Fujita et al., in every embodiment, clearly and unambiguously teaches that the support plate is displaceably mounted. Applicant believes this was the reason why prosecution was reopened, and the Examiner cited a new reference (Kok) as teaching a support plate that is non-displaceably mounted on a movable carrier. If the Examiner believed that the Fujita et al. reference teaches a support plate that is non-displaceably mounted, there would have been no reason to additionally rely on the Kok reference, and there would have been no reason to reopen prosecution.

Applicant therefore assumes that the Examiner agrees that the Fujita et al. reference teaches a displaceably mounted support plate, and further assumes that the position of the Examiner is that it would have been obvious to a person of ordinary skill in the art to employ the support plate disclosed in the Kok reference, that is non-displaceably mounted on a movable carrier, instead of the displaceably mounted support plate disclosed in all embodiments of the Fujita et al. reference.

The Examiner stated a person of ordinary skill in the art would be motivated to employ the non-displaceable mount because it would eliminate the movement mechanism of the support plate, since the source and detector pair is independently moved to position the patient in between.

Applicant respectfully disagrees with the alleged motivation proposed by the Examiner, and Applicant further submits that the evidence of record indicates that the conventional thinking in the design of computed tomography systems employing a gantry for rotating the X-ray source and the radiation detector is contrary to the modification proposed by the Examiner.

The imaging system disclosed in the Kok reference is a generally "open" system, wherein the X-ray source and the radiation detector are mounted on a bracket or arm arrangement approximately in the shape of a C. This open arrangement produces very little impediment or restriction to the type of patient support that can be used therewith. Because the system is relatively open, there are no confining walls or other structure that would impede or dictate the particular type of patient support arrangement that is used. Although the Kok reference discloses a patient support arrangement wherein the support plate is non-displaceably mounted on a mobile stand, no particular importance is attached to the fact that the support plate is non-displaceably mounted on the stand, and a displaceable support plate could just as easily have been used.

By contrast, claim 1 of the present application specifically claims a gantry having a measuring opening therein, with an x-ray source and a radiation detector mounted in the gantry relative to the opening at positions for irradiating a subject placed in the opening. This type of gantry arrangement, as opposed to the open arrangement disclosed in the Kok reference, is much more restrictive and confining as to the type of patient support which can be used therewith. Those of ordinary skill in the field of computed tomography employing a gantry for the x-ray source and the radiation detector have conventionally assumed that it would not be possible, or at least very difficult, to accurately position a support plate with a patient lying thereon in the use position in the gantry without the capability of being able to adjust either the gantry or the support plate.

Such a gantry system, therefore, represents a "closed" structure, in contrast to the open arrangement of the x-ray source and the x-ray image intensifier attached to the free ends of C-shaped or U-shaped carrier.

The Fujita et al. reference itself is strong evidence against the alleged obviousness of modifying that reference to employ a patient support arrangement as described in the Kok reference. As argued in Applicant's previous responses, in all embodiments disclosed in the Fujita et al. reference, including the embodiment shown in Figure 23A which has a movable gantry, a patient support arrangement has been used which has a support plate that is displaceably mounted to a stand. Despite the fact that in Figure 23A both the support stand and the gantry are independently movable, the support plate disclosed in that embodiment has still been made to be displaceable on the stand. It has never occurred to those of ordinary skill in the field of computed tomography systems employing a gantry to use a support arrangement for the patient wherein the support plate is stationary with regard to a mobile stand, with the gantry also being independently movable, as set forth in independent claim 1 of the present application.

Applicant therefore respectfully submits the modification of the Fujita et al. reference in accordance with the teachings of the Kok reference has occurred to the Examiner only by hindsight, after the Examiner has first had the benefit of reading the present disclosure. The references of record themselves are ample evidence that such a modification has not occurred to those of ordinary skill in the art. As noted above, the Examiner has suggested a motivation for making such a modification on the basis that a stationarily mounted support plate involves fewer moving parts, and therefore less expense, than a displaceably mounted support

plate. While this may be a true statement by itself, even if this fact has occurred to those of ordinary skill in the art of computed tomography employing a gantry system, it clearly has not been sufficient to outweigh the belief that a stationarily mounted support plate does not afford sufficient adjustability in the context of usage with the confined opening which is present in a gantry, as opposed to the relatively open system of the type exemplified by the Kok reference.

Claims 1, 2 and 4-7 therefore, would not have been obvious to a person of ordinary skill in the art under the provisions of 35 U.S.C. §103(a) based on the teachings of Fujita et al. and Kok.

Claim 3 adds further structure to the non-obvious combination of independent claim 1, and therefore if the Fujita et al./Kok combination were further modified in accordance with the teachings of Barth, the subject matter of claim 3 still would not result. The Barth et al. system, again, is an example of an open system, wherein the radiation source and the radiation detector are mounted on a C-arm. The impediments, which are imposed by a closed gantry system, of the type, set forth in claim 1 of the present application, therefore do not exist in the Barth et al. reference for the same reasons discussed above in connection with the Kok reference. Claim 3, therefore, would not have been obvious to a person of ordinary skill in the art based on the teachings of Fujita et al.. Kok and Barth et al.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

Steven H. Noll (Reg. 28,982)

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